Bachelor of Science in DATA SCIENCE (Starting Spring 2022)

General Education Core:

Required Core:

ENG 1101	English Comp 1	3
ENG 1121	English Comp 2	3
Any	Quantitative Reasoning	3-4
Any	Life and & Physical Science	3-4

Flexible Core:

Any	World Culture and lobal Issues	3
Any	US Experience and Diversity	3
Any	Creative Expression	3
Any	Individual and Society	3
Any	Scientific World	3
Any	Additional 6th course	3

College Option:

Any	Speech / Oral Communication	3
Any	Interdisciplinary Course	3
Any	Additional Liberal Arts course I	3
Any	Additional Liberal Arts course II	3
Sub-Total		**42-44**

Program General Education Requirements:

MAT 1475	Calculus I	4
MAT 1575	Calculus II	4
MAT 2572	Probability and Statistics I	4
MAT 2440	Discrete Structures and Algorithms I	3
MAT 2580	Introduction to Linear Algebra	3
Sub-Total		**18**
General Education Total		**60-62**

BS major core requirements:

Computer Systems Fundamentals:

CST 1100	Introduction to Computer Systems	3
CST 1101	Problem Solving with Computer Programming	3
CST 1201	Programming Fundamentals	3
CST 1204	Database Fundamentals	3
CST 2312	Information and Data Management I	3
CST 2309	Web Programming I	3
CST 2402	Introduction to Data Science	3
CST 2412	Data Security, Privacy and Ethics	3
Sub-Total		**24**

Data Science Core:

CST 3512	Information and Data Management II	3
CST 3502	Data Mining	3
CST 3513	Object Oriented Programming	3
CST 3602	Data Visualization	3
CST 3650	Data Structures	3
CST 4702	Machine Learning Fundamentals	3
CST 4714 or CST 3624	Database Administration / Introduction to Non-Relational (NoSQL) Technologies	3
CST 4802	Information Retrieval	3
CST 4812	Natural Language Processing	3
Sub-Total		**27**
CST 4900	Internship	3
Sub-Total		**3**
BS Major Core Total		**54**

Data Science major electives
(take any 2 courses from the list below)

BUS 2339	Financial Management	3
BUS 2341	Financial Forecasting	3
ECON 1101	Macroeconomics	3
ECON 2301	Money and Banking	3
MED 2400	Medical Informatics Fundamentals	3
MED 4229	Healthcare Databases	3
CET 4925	Internet of Things	3
CET 4973	Introduction to Artificial Intelligence	3
MAT 3672	Probability and Statistics II	3
MAT 4672	Computational Statistics with Applications	4
PHY 3600ID	*Machine Learning for Physics and Astronomy	3
Major Electives Sub-Total		**6-7**

*Specific course indicates double duty course, i.e. program degree requirement that also meet general education requirements. Choose another elective to complete 120 credits if choosing to take double duty.

Total Credits: 120 – 123